

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application for:

**WALKER, JESSE R.**

Application No.: 10/654,238

Filed: September 2, 2003

For: Authenticated Key Exchange Based on  
a Pairwise Master Key

Examiner: Kim, Wesley Leo

Art Group: 2617

Confirmation No.: 4873

Mail Stop AF  
Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Dear Sir:

In the Office Action mailed April 27, 2007 ("April Office Action"), claims of the above-captioned application were finally rejected under references to Meier and/or Toyoshima.

Applicants hereby appeal this decision of the Examiner to the Board of Patent Appeals and Interferences according to 35 U.S.C. §134 and submit a Notice of Appeal in compliance with 37 C.F.R. §41.31 contemporaneously with the present request. Prior to the filing of the Appeal Brief, Applicants respectfully request that a panel of Examiners formally review the legal and factual basis of the rejections in the above-captioned application in light of the remarks to follow.

## **REMARKS/ARGUMENTS**

### **I. STATUS OF CLAIMS**

Claims 1-20 are pending.

Claims 1-16 have been rejected as being anticipated by Meier et al. (U.S. Publication No. 2004/0103282) under 35 U.S.C. § 102(e).

Claims 17-20 have been rejected as being unpatentable over Meier and in view of Toyoshima (U.S. Publication No. 2002/008741) under 35 U.S.C. § 103(a).

These rejections are respectfully traversed and reconsideration is respectfully requested.

### **II. Claim Rejections under 35 U.S.C. § 102**

The Examiner has made a final rejection of claims 1-20 under 35 U.S.C. § 102(e) as being anticipated by Meier. It is respectfully submitted that the rejections are improper.

To establish a *prima facie* case of anticipation under 35 U.S.C. § 102, the Examiner must identify where "each and every facet of the claimed invention is disclosed in the applied reference" *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1462 (Bd. Pat. App. & Interf. 1990), see also *Electro Med. Sys. S.A. v. Cooper Life Sciences*, 34 F.3d 1048, 1052, 32 U.S.P.Q.2d 1017, 1019 (Fed. Cir. 1994). Further, anticipation requires that each claim element must be **identical** to a corresponding element in the applied reference. *Glaverbel Société Anonyme v. Northlake Mktg & Supply, Inc.*, 45 F.3d 1550, 1554 (Fed. Cir. 1995) (emphasis added).

Each of independent claims 1, 5, 9, 13, and 17 includes, in substance, the feature that an access point (AP) nonce is defined as the nonce of the AP. Such a nonce is not taught, suggested, or disclosed by Meier. The Examiner states that "to the examiner, an access point nonce defined as the nonce of the AP, is a nonce which has traveled from or has traversed through the access point." *Office Action* mailed 4/27/07, p.3. Consequently, the Examiner has

relied on “Fig. 8; 18<sup>th</sup> arrow transmits AP NONCE to mobile node, the AP NONCE is defined as a nonce of the AP by the SCM,” to anticipate the feature wherein the AP nonce is defined as the nonce of the AP. *Office Action* mailed 4/27/07, p.4. This rejection is deficient for at least the following reasons.

The NONCE<sub>SCM</sub> in Figure 8 of Meier is never defined as a nonce of the AP. Rather, the 18<sup>th</sup> arrow illustrates an EAPOL Key being transmitted from an AP to a MN (“mobile node”). The nonce included with this key is never defined as a nonce of the AP, rather it is the nonce of the SCM, and is merely transmitted through the AP to the MN. Meier teaches an SCM manages the keys of the MNs and APs.

“Keys are managed by a centralized node that provides subnet context management (SCM). Preferably, the SCM is the 802.1x authenticator for all MNs and APs enforcing all MN nodes to implicitly register.”

*Meier*, p.4 para.[0133]. In establishing these keys, communication between the MN and the SCM is necessary. In Meier, the MN is attempting to register with the SCM. As illustrated in Fig.1, the keys for registering an MN with the SCM are derived from an NSK. Meier teaches a KRK and BTK derived from the NSK. In deriving the KRK and the BTK, a PRF-384 function is used. This function utilizes the NSK, the BSSID, the STA-ID, and two nonces, one from the SCM and one from the STA (or MN). The resultant keys, the KRK, and the BTK, therefore, are a result of two nonces, one associated with the SCM and one from the STA. Nowhere is one of these Nonces defined as a nonce of an AP, nor would such a definition provide any utility. Consequently, Meier fails to teach the identical claim element of defining an access point nonce of an AP.

Second, the Examiner relies on “a broad reasonable interpretation” of the claimed limitation, and argues that “to the examiner, an access point nonce defined as the nonce of the AP is a nonce which has traveled from or has traversed through the access point.” *Office Action*, p.3. In relying on this statement for the rejection, the Examiner is implicitly equating the limitation “defining” with “traveling from or traversing through.” Such an interpretation of the term “defining” is anything but reasonable. Looking to the Merriam-Webster Unabridged Dictionary and Webster’s Encyclopedic Dictionary of the English Language, 1996, the term “defining” has the following meanings:

to explain or identify the nature or essential qualities of;  
to fix, decide, or prescribe, clearly and with authority;  
to mark the limits of : determine with precision or exhibit clearly  
the boundaries of.

The Applicant fails to see how “a nonce traveling from or traversing through an access point” is a broad reasonable interpretation of “defining an access point nonce of an AP.”

It is respectfully submitted that nowhere in Meier, et al., is any nonce of any type defined as the nonce of an access point—not by the subnet context manager or the access point itself. As the Examiner admits, the nonce in Meier, et al.’s system has simply passed through the access point. It is **not defined** as the nonce of the access point. Many signals pass through the AP. Following the Examiner’s logic, all such signals would be defined as signals of the AP. Furthermore, any assertion that a broad reasonable interpretation of “defining an access point nonce” is equivalent to “a nonce traveling from or traversing through an AP,” must also fail for the foregoing reasons. Accordingly, for at least these reasons, Meier, et al., does not anticipate Claims 1, 5, 9, and 13. Accordingly, these claims are allowable.

Claims 2-4, 6-8, 10-12, and 14-16 depend on Claims 1, 5, 9, and 13, respectively, and therefore, they are allowable for at least the reasons Claims 1, 5, 9, and 13 are allowable.

### **III. Claim Rejections under 35 U.S.C. §103(a)**

In the subject office action, claims 17-20 were rejected as being unpatentable over Meier et al. in view of Toyoshima.

Claim 17 is directed to an apparatus that includes the feature of the AP nonce is defined as a nonce of the AP. It is respectfully submitted that Toyoshima does not make up for the lack of teaching in Meier, et al. Toyoshima, as in Meier, et al., does not disclose defining an access point nonce of an access point. Accordingly, it is respectfully submitted that Claims 17-20 are also allowable.

### **IV. Conclusion**

In view of the foregoing, Applicants submit all pending claims, specifically, claims 1-20, are in condition for allowance. The Examiner is invited to call the undersigned at (503) 796-2408 regarding any inquiry concerning this communication. Issuance of a Notice of Allowance is respectfully requested.

The Commissioner is hereby authorized to charge shortages or credit overpayments to Deposit Account No. 500393.

Respectfully submitted,  
SCHWABE, WILLIAMSON & WYATT, P.C.

Dated: 08/21/2007

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